

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference H1022754PCT	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/JP 03/12837	International filing date (day/month/year) 07/10/2003	(Earliest) Priority Date (day/month/year) 21/10/2002
Applicant HONDA MOTOR CO., LTD.		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 4 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of invention is lacking** (see Box II).

4. With regard to the **title**,

☐ the text is approved as submitted by the applicant.

☒ the text has been established by this Authority to read as follows:

ELECTRONIC CONTROL UNIT AND METHOD FOR CONTROLLING AN IGNITION TIMING OF AN INTERNAL-COMBUSTION ENGINE

5. With regard to the **abstract**,

☐ the text is approved as submitted by the applicant.

☒ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.

☐ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☒ ~~because this figure better characterizes the invention.~~

1, 3

☐ None of the figures.

Box III TEXT OF THE ABSTRACT (Continuation of item 5 of the first sheet)

An ignition timing value of the internal-combustion engine is calculated by using correction terms including a first correction term that is calculated based on a controlled variable without reflecting a desired value and a second correction term that is calculated based on a difference between the controlled variable and the desired value. The first correction term can be calculated based on the controlled variable with no influence of the desired value. Thus, a sudden change does not occur in the feedback controlled variable even in a situation where the difference between the controlled variable and the desired value changes step-wise. Besides, the first correction term is a proportional term (51) and the second correction term is an integral term (55). The controlled variable is a rotational speed of the internal-combustion engine (NE) that is detected by a detector for detecting the engine rotational speed.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/JP 03/12837

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 F02P5/15

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 F02P

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 1 010 880 A (HONDA MOTOR CO LTD) 21 June 2000 (2000-06-21) paragraphs '0103!', '0104!', '0114!'-'0118!', '0160!; claim 3; figures 10-12 ---	1-4
X	EP 1 079 089 A (TOYOTA MOTOR CO LTD) 28 February 2001 (2001-02-28) paragraphs '0155!'-'0162!; figure 18 ---	1-3
X	US 5 492 094 A (DONA ALAN R ET AL) 20 February 1996 (1996-02-20) claims 3,4; figures 3,4 column 3, line 39-41 column 5, line 64 column 6, line 1-3 -----	1

☐ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

* & * document member of the same patent family

Date of the actual completion of the international search

7 January 2004

Date of mailing of the international search report

19/01/2004

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/JP 03/12837

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
EP 1010880	A	21-06-2000	JP	2000179439 A		27-06-2000
			EP	1010880 A2		21-06-2000
			US	6276131 B1		21-08-2001
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EP 1079089	A	28-02-2001	JP	2001059443 A		06-03-2001
			JP	2001090581 A		03-04-2001
			EP	1079089 A2		28-02-2001
			US	6505594 B1		14-01-2003
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US 5492094	A	20-02-1996	DE	69619590 D1		11-04-2002
			DE	69619590 T2		18-07-2002
			EP	0747588 A2		11-12-1996
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